

31. EXTENSIVE LOSS OF WATER BY FOREST TREES
IN THE DANGS FOREST

In a paper published by the present author in the *Journ. Gujerat Res. Soc.* (16: 318, 1954) mention was made of extensive loss of water by *Ougenia dalbergioides* Benth. The loss of water was in fact so great that when the tree was placed between the observer and the sun, it appeared like a constant drizzle. In the month of October of this year I was again in the Dangs Forest and noticed that the 'rain' was not confined to *Ougenia*; it was noted also under *Mangifera indica*, *Grevillea robusta*, *Syzygium cumini*, and others. This phenomenon was observed by myself and my assistants almost every morning from sunrise to about 10 a.m. If one stood under the tree at that time, one's face and clothing were soon noticeably wet.

Another remarkable aspect of this 'rain' was that even trees growing in rather dry spots seem to be giving out great amounts of water. At the time our observations were made, it was not possible to assess the quantity of water lost by any particular tree, but it was quite clear that it was considerable; the temperature was noted as between 80 and 82 degrees F.

One simple explanation of this phenomenon is that the relative humidity of the atmosphere being very high (about 80% at the time) much of the surplus water taken up by the tree was released not in the form of water vapour but as liquid drops, which gathered at the ends of the leaves and reaching certain size or quantity fell to the ground. It is, however, a great puzzle, how to account for the large quantity of water lost by such trees. This phenomenon has not been observed by the writer in any other part of Bombay State.

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32. *DOLICHOS BRACTEATUS* BAKER

In the course of our studies on the Papilionaceae of Bombay, on which the junior author has been engaged for over a year, we have gathered some details which may be of interest to botanical readers of the *Journal*.

Dolichos bracteatus Baker is a plant of rather restricted distribution; Cooke in his *Flora Pres. Bombay* (1: 381, 1902) considers it 'a very rare plant, the only specimens seen being those in Herb. Kew, marked "Konkan, Stocks".' The type sheet of the species is a rather dilapidated specimen, of which only one leaflet (out of three) and some flowers are preserved. However, in our field excursions we have had occasion to see and collect the plant in Khandala, Purandhar, Mahableshtar etc.; in all these places the plant is far from rare, large masses of leaves, flowers and fruits being available during the monsoon months; along the road down Fitzgerald Ghat at Mahableshtar it is one of the showiest plants in the second half of